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A-579D.ST25.txt
SEQUENCE LISTING

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<110> Yoshinaga, Steven

<120> Novel Polypeptides Involved in Immune Response

<130> A-579D

<140> 09/728,421

<141> 2000-11-28

<150> PCT/US00/01871

<151> 2000-01-27

<150> US 09/264,527

<151> 1999-03-08

<150> US 09/244,448

<151> 1999-02-03

<160> 35

<170> PatentIn version 3.0

<210> 1

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<220>

<221> CDS

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48

Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg

1 5 10 15

ctt tta aca gga gaa atc aat ggc tcg gcc gat cat agg atg ttt tca
96

Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser

20 25 30

ttt cac aat gga ggt gta cag att tct tgt aaa tac cct gag act gtc
44

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val

1

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35

40

45

cag cag tta aaa atg cga ttg ttc aga gag aga gaa gtc ctc tgc gaa 1
92

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu

50

55

60

ctc acc aag acc aag gga agc gga aat gcg gtg tcc atc aag aat cca 2
40

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro

65

70

75

80

atg ctc tgt cta tat cat ctg tca aac aac agc gtc tct ttt ttc cta 2
88

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu

85

90

95

aac aac cca gac agc tcc cag gga agc tat tac ttc tgc agc ctg tcc 3
36

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser

100

105

110

att ttt gac cca cct cct ttt caa gaa agg aac ctt agt gga gga tat 3
84

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr

115

120

125

ttg cat att tat gaa tcc cag ctc tgc tgc cag ctg aag ctc tgg cta 4
32

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu

130

135

140

ccc gta ggg tgt gca gct ttc gtt gtg gta ctc ctt ttt gga tgc ata 4
80

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile

145

150

155

160

ctt atc atc tgg ttt tca aaa aag aaa tac gga tcc agt gtg cat gac 5
28

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp

165

170

175

cct aat agt gaa tac atg ttc atg gcg gca gtc aac aca aac aaa aag 5
76

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys

180

185

190

tct aga ctt gca ggt gtg acc tca
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Ser Arg Leu Ala Gly Val Thr Ser

195

200

<210> 2

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<213> Mus musculus

<400> 2

Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg
1 5 10 15

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20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
35 40 45

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
65 70 75 80

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Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
100 105 110

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
115 120 125

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
165 170 175

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
180 185 190

Ser Arg Leu Ala Gly Val Thr Ser
195 200

<210> 3

<211> 200

<212> PRT

<213> Mus musculus

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Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg
1 5 10 15

Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser
20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
35 40 45

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
50 55 60

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Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
65 70 75 80

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
100 105 110

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
115 120 125

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
165 170 175

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
180 185 190

Ser Arg Leu Ala Gly Val Thr Ser
195 200

<210> 4

<211> 218

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<213> Mus musculus

<400> 4

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1 5 10 15

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20 25 30

Asp Ser Asn Glu Val Ser Leu Ser Cys Arg Tyr Ser Tyr Asn Leu Leu
35 40 45

Ala Lys Glu Phe Arg Ala Ser Leu Tyr Lys Gly Val Asn Ser Asp Val
50 55 60

Glu Val Cys Val Gly Asn Gly Asn Phe Thr Tyr Gln Pro Gln Phe Arg
65 70 75 80

Ser Asn Ala Glu Phe Asn Cys Asp Gly Asp Phe Asp Asn Glu Thr Val
85 90 95

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Thr	Phe	Arg	Leu	Trp	Asn	Leu	His	Val	Asn	His	Thr	Asp	Ile	Tyr	Phe
			100					105					110		
Cys	Lys	Ile	Glu	Phe	Met	Tyr	Pro	Pro	Pro	Tyr	Leu	Asp	Asn	Glu	Arg
		115					120					125			
Ser	Asn	Gly	Thr	Ile	Ile	His	Ile	Lys	Glu	Lys	His	Leu	Cys	His	Thr
	130					135					140				
Gln	Ser	Ser	Pro	Lys	Leu	Phe	Trp	Ala	Leu	Val	Val	Val	Ala	Gly	Val
145					150					155					160
Leu	Phe	Cys	Tyr	Gly	Leu	Leu	Val	Thr	Val	Ala	Leu	Cys	Val	Ile	Trp
				165					170					175	
Thr	Asn	Ser	Arg	Arg	Asn	Arg	Leu	Leu	Gln	Val	Thr	Thr	Met	Asn	Met
			180					185					190		
Thr	Pro	Arg	Arg	Pro	Gly	Leu	Thr	Arg	Lys	Pro	Tyr	Gln	Pro	Tyr	Ala
		195					200					205			
Pro	Ala	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Pro						
	210					215									

<210> 5
 <211> 234
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> misc_feature
 <222> (1)..(234)
 <223> Xaa is an unspecified amino acid

<400> 5

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Leu	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		35					40					45			
Val	Xaa	Xaa	Ser	Cys	Xaa	Tyr	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	50					55					60				
Xaa	Xaa	Xaa	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Val	Xaa	Xaa	Cys	Xaa

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65					70					75					80
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
				85					90					95	
Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Asn	Xaa	Xaa	Val	Xaa	Phe	Xaa	Leu
			100					105					110		
Xaa	Asn	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Tyr	Phe	Cys	Xaa	Xaa	Xaa
		115					120					125			
Xaa	Xaa	Xaa	Pro	Pro	Pro	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Ser	Xaa	Gly	Xaa
		130				135						140			
Xaa	Xaa	His	Ile	Xaa	Glu	Xaa	Xaa	Leu	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
145					150				155						160
Lys	Leu	Xaa	Trp	Xaa	Leu	Xaa	Val	Xaa	Xaa	Xaa	Xaa	Xaa	Phe	Xaa	Xaa
				165					170					175	
Xaa	Xaa	Leu	Leu	Xaa	Xaa	Xaa	Xaa	Leu	Xaa	Xaa	Ile	Trp	Xaa	Xaa	Xaa
			180					185					190		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Pro	Xaa
		195					200					205			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Arg
		210				215					220				
Xaa	Xaa	Ala	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa						
225					230										

<210> 6
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 <213> Mus musculus

<220>
 <221> CDS
 <222> (1)..(966)

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 1 5 10 15

gtt tgg aag aag ctc cat gtt tct agc ggg ttc ttt tct ggt ctt ggt
 96

A-579D.ST25.txt

Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly

20

25

30

ctg ttc ttg ctg ctg ttg agc agc ctc tgt gct gcc tct gca gag act 1
44

Leu Phe Leu Leu Leu Leu Ser Ser Leu Cys Ala Ala Ser Ala Glu Thr

35

40

45

gaa gtc ggt gca atg gtg ggc agc aat gtg gtg ctc agc tgc att gac 1
92

Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp

50

55

60

ccc cac aga cgc cat ttc aac ttg agt ggt ctg tat gtc tat tgg caa 2
40

Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln

65

70

75

80

atc gaa aac cca gaa gtt tcg gtg act tac tac ctg cct tac aag tct 2
88

Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr Lys Ser

85

90

95

cca ggg atc aat gtg gac agt tcc tac aag aac agg ggc cat ctg tcc 3
36

Pro Gly Ile Asn Val Asp Ser Ser Tyr Lys Asn Arg Gly His Leu Ser

100

105

110

ctg gac tcc atg aag cag ggt aac ttc tct ctg tac ctg aag aat gtc 3
84

Leu Asp Ser Met Lys Gln Gly Asn Phe Ser Leu Tyr Leu Lys Asn Val

115

120

125

acc cct cag gat acc cag gag ttc aca tgc cgg gta ttt atg aat aca 4
32

Thr Pro Gln Asp Thr Gln Glu Phe Thr Cys Arg Val Phe Met Asn Thr

A-579D.ST25.txt

130	135	140	
gcc aca gag tta gtc aag atc ttg gaa gag gtg gtc agg ctg cgt gtg			4
80			
Ala Thr Glu Leu Val Lys Ile Leu Glu Glu Val Val Arg Leu Arg Val			
145	150	155	160
gca gca aac ttc agt aca cct gtc atc agc acc tct gat agc tcc aac			5
28			
Ala Ala Asn Phe Ser Thr Pro Val Ile Ser Thr Ser Asp Ser Ser Asn			
	165	170	175
ccg ggc cag gaa cgt acc tac acc tgc atg tcc aag aat ggc tac cca			5
76			
Pro Gly Gln Glu Arg Thr Tyr Thr Cys Met Ser Lys Asn Gly Tyr Pro			
	180	185	190
gag ccc aac ctg tat tgg atc aac aca acg gac aat agc cta ata gac			6
24			
Glu Pro Asn Leu Tyr Trp Ile Asn Thr Thr Asp Asn Ser Leu Ile Asp			
	195	200	205
acg gct ctg cag aat aac act gtc tac ttg aac aag ttg ggc ctg tat			6
72			
Thr Ala Leu Gln Asn Asn Thr Val Tyr Leu Asn Lys Leu Gly Leu Tyr			
	210	215	220
gat gta atc agc aca tta agg ctc cct tgg aca tct cgt ggg gat gtt			7
20			
Asp Val Ile Ser Thr Leu Arg Leu Pro Trp Thr Ser Arg Gly Asp Val			
225	230	235	240
ctg tgc tgc gta gag aat gtg gct ctc cac cag aac atc act agc att			7
68			
Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr Ser Ile			
	245	250	255

A-579D.ST25.txt

agc cag gca gaa agt ttc act gga aat aac aca aag aac cca cag gaa 8
16
Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro Gln Glu

260

265

270

acc cac aat aat gag tta aaa gtc ctt gtc ccc gtc ctt gct gta ctg 8
64
Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala Val Leu

275

280

285

gcg gca gcg gca ttc gtt tcc ttc atc ata tac aga cgc acg cgt ccc 9
12
Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro

290

295

300

cac cga agc tat aca gga ccc aag act gta cag ctt gaa ctt aca gac 9
60
His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp

305

310

315

320

cac gcc 9
66
His Ala

<210> 7
<211> 322
<212> PRT
<213> Mus musculus

<400> 7

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Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly
20 25 30

A-579D.ST25.txt

Leu	Phe	Leu	Leu	Leu	Leu	Ser	Ser	Leu	Cys	Ala	Ala	Ser	Ala	Glu	Thr
		35					40					45			
Glu	Val	Gly	Ala	Met	Val	Gly	Ser	Asn	Val	Val	Leu	Ser	Cys	Ile	Asp
	50					55					60				
Pro	His	Arg	Arg	His	Phe	Asn	Leu	Ser	Gly	Leu	Tyr	Val	Tyr	Trp	Gln
65					70					75					80
Ile	Glu	Asn	Pro	Glu	Val	Ser	Val	Thr	Tyr	Tyr	Leu	Pro	Tyr	Lys	Ser
				85					90					95	
Pro	Gly	Ile	Asn	Val	Asp	Ser	Ser	Tyr	Lys	Asn	Arg	Gly	His	Leu	Ser
			100					105					110		
Leu	Asp	Ser	Met	Lys	Gln	Gly	Asn	Phe	Ser	Leu	Tyr	Leu	Lys	Asn	Val
		115					120					125			
Thr	Pro	Gln	Asp	Thr	Gln	Glu	Phe	Thr	Cys	Arg	Val	Phe	Met	Asn	Thr
	130					135					140				
Ala	Thr	Glu	Leu	Val	Lys	Ile	Leu	Glu	Glu	Val	Val	Arg	Leu	Arg	Val
145					150					155					160
Ala	Ala	Asn	Phe	Ser	Thr	Pro	Val	Ile	Ser	Thr	Ser	Asp	Ser	Ser	Asn
				165					170					175	
Pro	Gly	Gln	Glu	Arg	Thr	Tyr	Thr	Cys	Met	Ser	Lys	Asn	Gly	Tyr	Pro
			180					185					190		
Glu	Pro	Asn	Leu	Tyr	Trp	Ile	Asn	Thr	Thr	Asp	Asn	Ser	Leu	Ile	Asp
		195					200					205			
Thr	Ala	Leu	Gln	Asn	Asn	Thr	Val	Tyr	Leu	Asn	Lys	Leu	Gly	Leu	Tyr
	210					215					220				
Asp	Val	Ile	Ser	Thr	Leu	Arg	Leu	Pro	Trp	Thr	Ser	Arg	Gly	Asp	Val
225					230					235					240

A-579D.ST25.txt

Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr Ser Ile
245 250 255

Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro Gln Glu
260 265 270

Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala Val Leu
275 280 285

Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro
290 295 300

His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp
305 310 315 320

His Ala

<210> 8
<211> 322
<212> PRT
<213> Mus musculus

<400> 8

Met Gln Leu Lys Cys Pro Cys Phe Val Ser Leu Gly Thr Arg Gln Pro
1 5 10 15

Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly
20 25 30

Leu Phe Leu Leu Leu Leu Ser Ser Leu Cys Ala Ala Ser Ala Glu Thr
35 40 45

Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp
50 55 60

Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln
65 70 75 80

Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr Lys Ser
85 90 95

A-579D.ST25.txt

Pro	Gly	Ile	Asn	Val	Asp	Ser	Ser	Tyr	Lys	Asn	Arg	Gly	His	Leu	Ser
			100					105					110		
Leu	Asp	Ser	Met	Lys	Gln	Gly	Asn	Phe	Ser	Leu	Tyr	Leu	Lys	Asn	Val
		115					120					125			
Thr	Pro	Gln	Asp	Thr	Gln	Glu	Phe	Thr	Cys	Arg	Val	Phe	Met	Asn	Thr
	130					135					140				
Ala	Thr	Glu	Leu	Val	Lys	Ile	Leu	Glu	Glu	Val	Val	Arg	Leu	Arg	Val
145					150					155					160
Ala	Ala	Asn	Phe	Ser	Thr	Pro	Val	Ile	Ser	Thr	Ser	Asp	Ser	Ser	Asn
				165					170					175	
Pro	Gly	Gln	Glu	Arg	Thr	Tyr	Thr	Cys	Met	Ser	Lys	Asn	Gly	Tyr	Pro
			180					185					190		
Glu	Pro	Asn	Leu	Tyr	Trp	Ile	Asn	Thr	Thr	Asp	Asn	Ser	Leu	Ile	Asp
		195					200					205			
Thr	Ala	Leu	Gln	Asn	Asn	Thr	Val	Tyr	Leu	Asn	Lys	Leu	Gly	Leu	Tyr
	210					215					220				
Asp	Val	Ile	Ser	Thr	Leu	Arg	Leu	Pro	Trp	Thr	Ser	Arg	Gly	Asp	Val
225					230					235					240
Leu	Cys	Cys	Val	Glu	Asn	Val	Ala	Leu	His	Gln	Asn	Ile	Thr	Ser	Ile
				245					250					255	
Ser	Gln	Ala	Glu	Ser	Phe	Thr	Gly	Asn	Asn	Thr	Lys	Asn	Pro	Gln	Glu
			260					265					270		
Thr	His	Asn	Asn	Glu	Leu	Lys	Val	Leu	Val	Pro	Val	Leu	Ala	Val	Leu
		275					280					285			
Ala	Ala	Ala	Ala	Phe	Val	Ser	Phe	Ile	Ile	Tyr	Arg	Arg	Thr	Arg	Pro
	290					295					300				
His	Arg	Ser	Tyr	Thr	Gly	Pro	Lys	Thr	Val	Gln	Leu	Glu	Leu	Thr	Asp
305					310					315					320

His Ala

<210> 9
 <211> 306
 <212> PRT
 <213> Mus musculus
 <400> 9

A-579D.ST25.txt

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Pro	Cys	Pro	Arg	Leu	Ile	Leu	Leu	Phe	Val	Leu	Leu	Ile	Arg	Leu	Ser	20	25	30	
Gln	Val	Ser	Ser	Asp	Val	Asp	Glu	Gln	Leu	Ser	Lys	Ser	Val	Lys	Asp	35	40	45	
Lys	Val	Leu	Leu	Pro	Cys	Arg	Tyr	Asn	Ser	Pro	His	Glu	Asp	Glu	Ser	50	55	60	
Glu	Asp	Arg	Ile	Tyr	Trp	Gln	Lys	His	Asp	Lys	Val	Val	Leu	Ser	Val	65	70	75	80
Ile	Ala	Gly	Lys	Leu	Lys	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Leu	85	90	95	
Tyr	Asp	Asn	Thr	Thr	Tyr	Ser	Leu	Ile	Ile	Leu	Gly	Leu	Val	Leu	Ser	100	105	110	
Asp	Arg	Gly	Thr	Tyr	Ser	Cys	Val	Val	Gln	Lys	Lys	Glu	Arg	Gly	Thr	115	120	125	
Tyr	Glu	Val	Lys	His	Leu	Ala	Leu	Val	Lys	Leu	Ser	Ile	Lys	Ala	Asp	130	135	140	
Phe	Ser	Thr	Pro	Asn	Ile	Thr	Glu	Ser	Gly	Asn	Pro	Ser	Ala	Asp	Thr	145	150	155	160
Lys	Arg	Ile	Thr	Cys	Phe	Ala	Ser	Gly	Gly	Phe	Pro	Lys	Pro	Arg	Phe	165	170	175	
Ser	Trp	Leu	Glu	Asn	Gly	Arg	Glu	Leu	Pro	Gly	Ile	Asn	Thr	Thr	Ile	180	185	190	
Ser	Gln	Asp	Pro	Glu	Ser	Glu	Leu	Tyr	Thr	Ile	Ser	Ser	Gln	Leu	Asp	195	200	205	
Phe	Asn	Thr	Thr	Arg	Asn	His	Thr	Ile	Lys	Cys	Leu	Ile	Lys	Tyr	Gly	210	215	220	
Asp	Ala	His	Val	Ser	Glu	Asp	Phe	Thr	Trp	Glu	Lys	Pro	Pro	Glu	Asp	225	230	235	240
Pro	Pro	Asp	Ser	Lys	Asn	Thr	Leu	Val	Leu	Phe	Gly	Ala	Gly	Phe	Gly	245	250	255	
Ala	Val	Ile	Thr	Val	Val	Val	Ile	Val	Val	Ile	Ile	Lys	Cys	Phe	Cys	260	265	270	

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Lys His Arg Ser Cys Phe Arg Arg Asn Glu Ala Ser Arg Glu Thr Asn
275 280 285

Asn Ser Leu Thr Phe Gly Pro Glu Glu Ala Leu Ala Glu Gln Thr Val
290 295 300

Phe Leu
305

<210> 10

<211> 327

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<222> (2)..(327)

<223> Xaa is an unspecified amino acid

<400> 10

Met Xaa Xaa Xaa Cys Xaa Cys Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Pro
1 5 10 15

Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa
20 25 30

Leu Phe Xaa Leu Leu Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Val Xaa Leu Xaa Cys Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa His Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Tyr Trp
65 70 75 80

Gln Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Tyr Lys Asn Arg Xaa Xaa Xaa
100 105 110

Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Leu Xaa Xaa Xaa Xaa
115 120 125

Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Xaa Xaa Cys Xaa Val Xaa Xaa Xaa
130 135 140

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Xaa Leu Xaa

A-579D.ST25.txt

145					150					155					160
Xaa	Xaa	Ala	Xaa	Phe	Ser	Thr	Pro	Xaa	Ile	Xaa	Xaa	Ser	Xaa	Xaa	Xaa
				165					170					175	
Xaa	Xaa	Xaa	Xaa	Xaa	Arg	Xaa	Xaa	Thr	Cys	Xaa	Xaa	Xaa	Xaa	Gly	Xaa
				180				185						190	
Pro	Xaa	Pro	Xaa	Xaa	Xaa	Trp	Xaa	Xaa	Asn	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		195					200					205			
Ile	Xaa	Thr	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	210					215						220			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Xaa	Xaa	Xaa
225					230					235					240
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Val	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
				245				250						255	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Asn	Xaa	Xaa	Xaa	Xaa	Xaa
				260				265						270	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Val	Xaa	Val	Xaa	Val	Xaa	Xaa
		275					280					285			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Phe	Xaa	Xaa	Xaa	Xaa	Xaa
		290				295					300				
Xaa	Arg	Xaa	Xaa	Xaa	Xaa	Ser	Xaa	Thr	Xaa	Gly	Pro	Xaa	Xaa	Xaa	Xaa
305					310					315					320
Xaa	Glu	Xaa	Thr	Xaa	Xaa	Xaa									
				325											

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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(864)

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 48
 Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu

1 5 10 15

A-579D.ST25.txt

cga gct gat act cag gag aag gaa gtc aga gcg atg gta ggc agc gac
96

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp

20

25

30

gtg gag ctc agc tgc gct tgc cct gaa gga agc cgt ttt gat tta aat
44

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn

35

40

45

gat gtt tac gta tat tgg caa acc agt gag tcg aaa acc gtg gtg acc
92

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr

50

55

60

tac cac atc cca cag aac agc tcc ttg gaa aac gtg gac agc cgc tac
40

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr

65

70

75

80

cgg aac cga gcc ctg atg tca ccg gcc ggc atg ctg cgg ggc gac ttc
88

Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe

85

90

95

tcc ctg cgc ttg ttc aac gtc acc ccc cag gac gag cag aag ttt cac
36

Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His

100

105

110

tgc ctg gtg ttg agc caa tcc ctg gga ttc cag gag gtt ttg agc gtt
84

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Val

115

120

125

gag gtt aca ctg cat gtg gca gca aac ttc agc gtg ccc gtc gtc agc

4

A-579D.ST25.txt

32

Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser

130

135

140

gcc ccc cac agc ccc tcc cag gat gag ctc acc ttc acg tgt aca tcc
80

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser

145

150

155

160

ata aac ggc tac ccc agg ccc aac gtg tac tgg atc aat aag acg gac
28

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp

165

170

175

aac agc ctg ctg gac cag gct ctg cag aat gac acc gtc ttc ttg aac
76

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn

180

185

190

atg cgg ggc ttg tat gac gtg gtc agc gtg ctg agg atc gca cgg acc
24

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr

195

200

205

ccc agc gtg aac att ggc tgc tgc ata gag aac gtg ctt ctg cag cag
72

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln

210

215

220

aac ctg act gtc ggc agc cag aca gga aat gac atc gga gag aga gac
20

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp

225

230

235

240

aag atc aca gag aat cca gtc agt acc ggc gag aaa aac gcg gcc acg
68

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr

A-579D.ST25.txt

245	250	255	
tgg agc atc ctg gct gtc ctg tgc ctg ctt gtg gtc gtg gcg gtg gcc			8
16			
Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala			
260	265	270	
ata ggc tgg gtg tgc agg gac cga tgc ctc caa cac agc tat gca ggt			8
64			
Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly			
275	280	285	
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<211>	288		
<212>	PRT		
<213>	Homo sapiens		
<400>	12		
Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu			
1	5	10	15
Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp			
	20	25	30
Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn			
	35	40	45
Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr			
	50	55	60
Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr			
65	70	75	80
Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe			
	85	90	95
Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His			

A-579D.ST25.txt

100

105

110

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Val
 115 120 125

Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser
 130 135 140

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser
 145 150 155 160

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp
 165 170 175

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn
 180 185 190

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr
 195 200 205

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln
 210 215 220

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp
 225 230 235 240

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr
 245 250 255

Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala
 260 265 270

Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
 275 280 285

<210> 13

<211> 267

<212> PRT

<213> Homo sapiens

A-579D.ST25.txt

<400> 13

Glu	Lys	Glu	Val	Arg	Ala	Met	Val	Gly	Ser	Asp	Val	Glu	Leu	Ser	Cys	1	5	10	15
Ala	Cys	Pro	Glu	Gly	Ser	Arg	Phe	Asp	Leu	Asn	Asp	Val	Tyr	Val	Tyr	20	25	30	
Trp	Gln	Thr	Ser	Glu	Ser	Lys	Thr	Val	Val	Thr	Tyr	His	Ile	Pro	Gln	35	40	45	
Asn	Ser	Ser	Leu	Glu	Asn	Val	Asp	Ser	Arg	Tyr	Arg	Asn	Arg	Ala	Leu	50	55	60	
Met	Ser	Pro	Ala	Gly	Met	Leu	Arg	Gly	Asp	Phe	Ser	Leu	Arg	Leu	Phe	65	70	75	80
Asn	Val	Thr	Pro	Gln	Asp	Glu	Gln	Lys	Phe	His	Cys	Leu	Val	Leu	Ser	85	90	95	
Gln	Ser	Leu	Gly	Phe	Gln	Glu	Val	Leu	Ser	Val	Glu	Val	Thr	Leu	His	100	105	110	
Val	Ala	Ala	Asn	Phe	Ser	Val	Pro	Val	Val	Ser	Ala	Pro	His	Ser	Pro	115	120	125	
Ser	Gln	Asp	Glu	Leu	Thr	Phe	Thr	Cys	Thr	Ser	Ile	Asn	Gly	Tyr	Pro	130	135	140	
Arg	Pro	Asn	Val	Tyr	Trp	Ile	Asn	Lys	Thr	Asp	Asn	Ser	Leu	Leu	Asp	145	150	155	160
Gln	Ala	Leu	Gln	Asn	Asp	Thr	Val	Phe	Leu	Asn	Met	Arg	Gly	Leu	Tyr	165	170	175	
Asp	Val	Val	Ser	Val	Leu	Arg	Ile	Ala	Arg	Thr	Pro	Ser	Val	Asn	Ile	180	185	190	
Gly	Cys	Cys	Ile	Glu	Asn	Val	Leu	Leu	Gln	Gln	Asn	Leu	Thr	Val	Gly	195	200	205	
Ser	Gln	Thr	Gly	Asn	Asp	Ile	Gly	Glu	Arg	Asp	Lys	Ile	Thr	Glu	Asn	210	215	220	
Pro	Val	Ser	Thr	Gly	Glu	Lys	Asn	Ala	Ala	Thr	Trp	Ser	Ile	Leu	Ala	225	230	235	240
Val	Leu	Cys	Leu	Leu	Val	Val	Val	Ala	Val	Ala	Ile	Gly	Trp	Val	Cys	245	250	255	

A-579D.ST25.txt

Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
 260 265

<210> 14
 <211> 276
 <212> PRT
 <213> Mus musculus

<400> 14

Glu Thr Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys
 1 5 10 15

Ile Asp Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr
 20 25 30

Trp Gln Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr
 35 40 45

Lys Ser Pro Gly Ile Asn Val Asp Ser Ser Tyr Lys Asn Arg Gly His
 50 55 60

Leu Ser Leu Asp Ser Met Lys Gln Gly Asn Phe Ser Leu Tyr Leu Lys
 65 70 75 80

Asn Val Thr Pro Gln Asp Thr Gln Glu Phe Thr Cys Arg Val Phe Met
 85 90 95

Asn Thr Ala Thr Glu Leu Val Lys Ile Leu Glu Glu Val Val Arg Leu
 100 105 110

Arg Val Ala Ala Asn Phe Ser Thr Pro Val Ile Ser Thr Ser Asp Ser
 115 120 125

Ser Asn Pro Gly Gln Glu Arg Thr Tyr Thr Cys Met Ser Lys Asn Gly
 130 135 140

Tyr Pro Glu Pro Asn Leu Tyr Trp Ile Asn Thr Thr Asp Asn Ser Leu
 145 150 155 160

Ile Asp Thr Ala Leu Gln Asn Asn Thr Val Tyr Leu Asn Lys Leu Gly
 165 170 175

Leu Tyr Asp Val Ile Ser Thr Leu Arg Leu Pro Trp Thr Ser Arg Gly
 180 185 190

Asp Val Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr
 195 200 205

Ser Ile Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro
 210 215 220

A-579D.ST25.txt

Gln Glu Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala
225 230 235 240

Val Leu Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr
245 250 255

Arg Pro His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu
260 265 270

Thr Asp His Ala
275

<210> 15

<211> 280

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<222> (2)..(280)

<223> Xaa is an unspecified amino acid

<400> 15

Glu Xaa Glu Val Xaa Ala Met Val Gly Ser Xaa Val Xaa Leu Ser Cys
1 5 10 15

Xaa Xaa Pro Xaa Xaa Xaa Xaa Phe Xaa Leu Xaa Xaa Xaa Tyr Val Tyr
20 25 30

Trp Gln Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Thr Tyr Xaa Xaa Pro Xaa
35 40 45

Xaa Ser Xaa Xaa Xaa Asn Val Asp Ser Xaa Tyr Xaa Asn Arg Xaa Xaa
50 55 60

Xaa Ser Xaa Xaa Xaa Met Xaa Xaa Gly Xaa Phe Ser Leu Xaa Leu Xaa
65 70 75 80

Asn Val Thr Pro Gln Asp Xaa Gln Xaa Phe Xaa Cys Xaa Val Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Val Xaa Leu
100 105 110

Xaa Val Ala Ala Asn Phe Ser Xaa Pro Val Xaa Ser Xaa Xaa Xaa Ser
115 120 125

Xaa Xaa Xaa Xaa Xaa Glu Xaa Thr Xaa Thr Cys Xaa Ser Xaa Asn Gly

A-579D.ST25.txt

130

135

140

Tyr Pro Xaa Pro Asn Xaa Tyr Trp Ile Asn Xaa Thr Asp Asn Ser Leu
145 150 155 160

Xaa Asp Xaa Ala Leu Gln Asn Xaa Thr Val Xaa Leu Asn Xaa Xaa Gly
165 170 175

Leu Tyr Asp Val Xaa Ser Xaa Leu Arg Xaa Xaa Xaa Thr Xaa Xaa Xaa
180 185 190

Xaa Xaa Xaa Cys Cys Xaa Glu Asn Val Xaa Leu Xaa Gln Asn Xaa Thr
195 200 205

Xaa Xaa Ser Gln Xaa Xaa Xaa Xaa Xaa Gly Xaa Xaa Lys Xaa Xaa Xaa
210 215 220

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu
225 230 235 240

Ala Val Leu Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Ile Xaa Xaa Xaa
245 250 255

Xaa Arg Xaa Arg Xaa Xaa Xaa Xaa Ser Tyr Xaa Gly Xaa Xaa Xaa Xaa
260 265 270

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
275 280

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<211> 1294
<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(199)

<220>
<221> CDS
<222> (200)..(1105)

<400> 16
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60

cgcccgcggg agcgcagtta gagccgatct cccgcgcccc gaggttgctc ctctccgagg 1
20

tctcccgcgg cccaagttct ccgcgccccg aggtctccgc gcccgcaggt ctccgcggcc 1
80

A-579D.ST25.txt

cgagggtctcc gcccgccacc atg cgg ctg ggc agt cct gga ctg ctc ttc ctg 2
32

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu

1 5 10

ctc ttc agc agc ctt cga gct gat act cag gag aag gaa gtc aga gcg 2
80

Leu Phe Ser Ser Leu Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala

15 20 25

atg gta ggc agc gac gtg gag ctc agc tgc gct tgc cct gaa gga agc 3
28

Met Val Gly Ser Asp Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser

30 35 40

cgt ttt gat tta aat gat gtt tac gta tat tgg caa acc agt gag tcg 3
76

Arg Phe Asp Leu Asn Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser

45 50 55

aaa acc gtg gtg acc tac cac atc cca cag aac agc tcc ttg gaa aac 4
24

Lys Thr Val Val Thr Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn

60 65 70 75

gtg gac agc cgc tac cgg aac cga gcc ctg atg tca ccg gcc ggc atg 4
72

Val Asp Ser Arg Tyr Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met

80 85 90

ctg cgg ggc gac ttc tcc ctg cgc ttg ttc aac gtc acc ccc cag gac 5
20

Leu Arg Gly Asp Phe Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp

95 100 105

gag cag aag ttt cac tgc ctg gtg ttg agc caa tcc ctg gga ttc cag 5

A-579D.ST25.txt

68

Glu Gln Lys Phe His Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln

110

115

120

gag gtt ttg agc gtt gag gtt aca ctg cat gtg gca gca aac ttc agc

16

Glu Val Leu Ser Val Glu Val Thr Leu His Val Ala Ala Asn Phe Ser

125

130

135

gtg ccc gtc gtc agc gcc ccc cac agc ccc tcc cag gat gag ctc acc

64

Val Pro Val Val Ser Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr

140

145

150

155

ttc acg tgt aca tcc ata aac ggc tac ccc agg ccc aac gtg tac tgg

12

Phe Thr Cys Thr Ser Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp

160

165

170

atc aat aag acg gac aac agc ctg ctg gac cag gct ctg cag aat gac

60

Ile Asn Lys Thr Asp Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp

175

180

185

acc gtc ttc ttg aac atg cgg ggc ttg tat gac gtg gtc agc gtg ctg

08

Thr Val Phe Leu Asn Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu

190

195

200

agg atc gca cgg acc ccc agc gtg aac att ggc tgc tgc ata gag aac

56

Arg Ile Ala Arg Thr Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn

205

210

215

gtg ctt ctg cag cag aac ctg act gtc ggc agc cag aca gga aat gac

04

Val Leu Leu Gln Gln Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp

A-579D.ST25.txt

220	225	230	235	
atc gga gag aga gac aag atc aca gag aat cca gtc agt acc ggc gag 52 Ile Gly Glu Arg Asp Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu				9
	240	245	250	
aaa aac gcg gcc acg tgg agc atc ctg gct gtc ctg tgc ctg ctt gtg 00 Lys Asn Ala Ala Thr Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val				10
	255	260	265	
gtc gtg gcg gtg gcc ata ggc tgg gtg tgc agg gac cga tgc ctc caa 48 Val Val Ala Val Ala Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln				10
	270	275	280	
cac agc tat gca ggt gcc tgg gct gtg agt ccg gag aca gag ctc act 96 His Ser Tyr Ala Gly Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr				10
	285	290	295	
ggc cac gtt tgaccggagc tcaccgccca gagcgtggac agggcttccg 45 Gly His Val				11
300				
tgagacgccca ccgtgagagg ccaggtggca gcttgagcat ggactcccag actgcagggg 05				12
agcacttggg gcagccccca gaaggaccac tgctggatcc cagggagaaac ctgctggcgt 65				12
tggctgtgat cctggaatga ggccttttc 94				12
<210> 17 <211> 302				

A-579D.ST25.txt

<212> PRT

<213> Homo sapiens

<400> 17

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu
1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp
20 25 30

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn
35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr
50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr
65 70 75 80

Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe
85 90 95

Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His
100 105 110

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Val
115 120 125

Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser
130 135 140

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser
145 150 155 160

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp
165 170 175

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn
180 185 190

A-579D.ST25.txt

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr
195 200 205

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln
210 215 220

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp
225 230 235 240

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr
245 250 255

Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala
260 265 270

Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
275 280 285

Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr Gly His Val
290 295 300

<210> 18
<211> 302
<212> PRT
<213> Homo sapiens

<400> 18

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu
1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp
20 25 30

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn
35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr
50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr
65 70 75 80

A-579D.ST25.txt

Arg	Asn	Arg	Ala	Leu	Met	Ser	Pro	Ala	Gly	Met	Leu	Arg	Gly	Asp	Phe	
				85					90					95		
Ser	Leu	Arg	Leu	Phe	Asn	Val	Thr	Pro	Gln	Asp	Glu	Gln	Lys	Phe	His	
			100					105					110			
Cys	Leu	Val	Leu	Ser	Gln	Ser	Leu	Gly	Phe	Gln	Glu	Val	Leu	Ser	Val	
		115					120					125				
Glu	Val	Thr	Leu	His	Val	Ala	Ala	Asn	Phe	Ser	Val	Pro	Val	Val	Ser	
	130					135					140					
Ala	Pro	His	Ser	Pro	Ser	Gln	Asp	Glu	Leu	Thr	Phe	Thr	Cys	Thr	Ser	
145					150					155					160	
Ile	Asn	Gly	Tyr	Pro	Arg	Pro	Asn	Val	Tyr	Trp	Ile	Asn	Lys	Thr	Asp	
				165					170					175		
Asn	Ser	Leu	Leu	Asp	Gln	Ala	Leu	Gln	Asn	Asp	Thr	Val	Phe	Leu	Asn	
			180					185					190			
Met	Arg	Gly	Leu	Tyr	Asp	Val	Val	Ser	Val	Leu	Arg	Ile	Ala	Arg	Thr	
		195					200					205				
Pro	Ser	Val	Asn	Ile	Gly	Cys	Cys	Ile	Glu	Asn	Val	Leu	Leu	Gln	Gln	
	210					215					220					
Asn	Leu	Thr	Val	Gly	Ser	Gln	Thr	Gly	Asn	Asp	Ile	Gly	Glu	Arg	Asp	
225					230					235					240	
Lys	Ile	Thr	Glu	Asn	Pro	Val	Ser	Thr	Gly	Glu	Lys	Asn	Ala	Ala	Thr	
				245					250					255		
Trp	Ser	Ile	Leu	Ala	Val	Leu	Cys	Leu	Leu	Val	Val	Val	Ala	Val	Ala	
			260					265					270			
Ile	Gly	Trp	Val	Cys	Arg	Asp	Arg	Cys	Leu	Gln	His	Ser	Tyr	Ala	Gly	
	275						280					285				
Ala	Trp	Ala	Val	Ser	Pro	Glu	Thr	Glu	Leu	Thr	Gly	His	Val			
	290					295					300					

<210> 19
 <211> 322
 <212> PRT
 <213> Mus musculus

<400> 19

Met Gln Leu Lys Cys Pro Cys Phe Val Ser Leu Gly Thr Arg Gln Pro

A-579D.ST25.txt

1		5		10		15										
Val	Trp	Lys	Lys	Leu	His	Val	Ser	Ser	Gly	Phe	Phe	Ser	Gly	Leu	Gly	
		20					25						30			
Leu	Phe	Leu	Leu	Leu	Leu	Ser	Ser	Leu	Cys	Ala	Ala	Ser	Ala	Glu	Thr	
		35					40					45				
Glu	Val	Gly	Ala	Met	Val	Gly	Ser	Asn	Val	Val	Leu	Ser	Cys	Ile	Asp	
	50					55					60					
Pro	His	Arg	Arg	His	Phe	Asn	Leu	Ser	Gly	Leu	Tyr	Val	Tyr	Trp	Gln	
65					70					75					80	
Ile	Glu	Asn	Pro	Glu	Val	Ser	Val	Thr	Tyr	Tyr	Leu	Pro	Tyr	Lys	Ser	
				85					90					95		
Pro	Gly	Ile	Asn	Val	Asp	Ser	Ser	Tyr	Lys	Asn	Arg	Gly	His	Leu	Ser	
			100					105					110			
Leu	Asp	Ser	Met	Lys	Gln	Gly	Asn	Phe	Ser	Leu	Tyr	Leu	Lys	Asn	Val	
		115					120					125				
Thr	Pro	Gln	Asp	Thr	Gln	Glu	Phe	Thr	Cys	Arg	Val	Phe	Met	Asn	Thr	
	130					135					140					
Ala	Thr	Glu	Leu	Val	Lys	Ile	Leu	Glu	Glu	Val	Val	Arg	Leu	Arg	Val	
145					150					155					160	
Ala	Ala	Asn	Phe	Ser	Thr	Pro	Val	Ile	Ser	Thr	Ser	Asp	Ser	Ser	Asn	
			165						170					175		
Pro	Gly	Gln	Glu	Arg	Thr	Tyr	Thr	Cys	Met	Ser	Lys	Asn	Gly	Tyr	Pro	
			180					185					190			
Glu	Pro	Asn	Leu	Tyr	Trp	Ile	Asn	Thr	Thr	Asp	Asn	Ser	Leu	Ile	Asp	
		195					200					205				
Thr	Ala	Leu	Gln	Asn	Asn	Thr	Val	Tyr	Leu	Asn	Lys	Leu	Gly	Leu	Tyr	
	210					215					220					
Asp	Val	Ile	Ser	Thr	Leu	Arg	Leu	Pro	Trp	Thr	Ser	Arg	Gly	Asp	Val	
225					230					235					240	
Leu	Cys	Cys	Val	Glu	Asn	Val	Ala	Leu	His	Gln	Asn	Ile	Thr	Ser	Ile	
				245					250					255		
Ser	Gln	Ala	Glu	Ser	Phe	Thr	Gly	Asn	Asn	Thr	Lys	Asn	Pro	Gln	Glu	
			260					265					270			
Thr	His	Asn	Asn	Glu	Leu	Lys	Val	Leu	Val	Pro	Val	Leu	Ala	Val	Leu	

275

280

285

Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro
 290 295 300

His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp
 305 310 315 320

His Ala

<210> 20

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<222> (2)..(329)

<223> Xaa is an unspecified amino acid

<400> 20

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Leu Xaa
 20 25 30

Leu Phe Xaa Leu Leu Xaa Ser Ser Leu Xaa Ala Xaa Xaa Xaa Glu Xaa
 35 40 45

Glu Val Xaa Ala Met Val Gly Ser Xaa Val Xaa Leu Ser Cys Xaa Xaa
 50 55 60

Pro Xaa Xaa Xaa Xaa Phe Xaa Leu Xaa Xaa Xaa Tyr Val Tyr Trp Gln
 65 70 75 80

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Thr Tyr Xaa Xaa Pro Xaa Xaa Ser
 85 90 95

Xaa Xaa Xaa Asn Val Asp Ser Xaa Tyr Xaa Asn Arg Xaa Xaa Xaa Ser
 100 105 110

Xaa Xaa Xaa Met Xaa Xaa Gly Xaa Phe Ser Leu Xaa Leu Xaa Asn Val
 115 120 125

Thr Pro Gln Asp Xaa Gln Xaa Phe Xaa Cys Xaa Val Xaa Xaa Xaa Xaa
 130 135 140

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Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Xaa	Xaa	Xaa	Val	Xaa	Leu	Xaa	Val
145						150				155					160
Ala	Ala	Asn	Phe	Ser	Xaa	Pro	Val	Xaa	Ser	Xaa	Xaa	Xaa	Ser	Xaa	Xaa
				165					170					175	
Xaa	Xaa	Xaa	Glu	Xaa	Thr	Xaa	Thr	Cys	Xaa	Ser	Xaa	Asn	Gly	Tyr	Pro
			180					185					190		
Xaa	Pro	Asn	Xaa	Tyr	Trp	Ile	Asn	Xaa	Thr	Asp	Asn	Ser	Leu	Xaa	Asp
		195					200					205			
Xaa	Ala	Leu	Gln	Asn	Xaa	Thr	Val	Xaa	Leu	Asn	Xaa	Xaa	Gly	Leu	Tyr
	210					215					220				
Asp	Val	Xaa	Ser	Xaa	Leu	Arg	Xaa	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Xaa	Xaa
225					230					235					240
Xaa	Cys	Cys	Xaa	Glu	Asn	Val	Xaa	Leu	Xaa	Gln	Asn	Xaa	Thr	Xaa	Xaa
				245					250					255	
Ser	Gln	Xaa	Xaa	Xaa	Xaa	Xaa	Gly	Xaa	Xaa	Xaa	Lys	Xaa	Xaa	Xaa	Xaa
			260					265					270		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Lys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Ala
		275					280					285			
Val	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Val	Xaa	Xaa	Xaa	Ile	Xaa	Xaa	Xaa	Xaa
	290					295					300				
Arg	Xaa	Arg	Xaa	Xaa	Xaa	Xaa	Ser	Tyr	Xaa	Gly	Xaa	Xaa	Xaa	Val	Xaa
305					310					315					320
Xaa	Glu	Xaa	Xaa	Leu	Thr	Xaa	His	Xaa							
				325											

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 <213> Homo sapiens

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 <221> 5'UTR
 <222> (1)..(165)

<220>
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<400> 21
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60

tatagggaaa gctggtacgc ctgcaggtac cgggtccggaa ttcccggggtc gacccacgcg 1
20

tccgtgaaca ctgaacgcga ggactgttaa ctgtttcttg caaac atg aag tca ggc 1
77

Met Lys Ser Gly

1

ctc tgg tat ttc ttt ctc ttc tgc ttg cgc att aaa gtt tta aca gga 2
25

Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys Val Leu Thr Gly

5 10 15 20

gaa atc aat ggt tct gcc aat tat gag atg ttt ata ttt cac aac gga 2
73

Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile Phe His Asn Gly

25 30 35

ggt gta caa att tta tgc aaa tat cct gac att gtc cag caa ttt aaa 3
21

Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val Gln Gln Phe Lys

40 45 50

atg cag ttg ctg aaa ggg ggg caa ata ctc tgc gat ctc act aag aca 3
69

Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp Leu Thr Lys Thr

55 60 65

aaa gga agt gga aac aca gtg tcc att aag agt ctg aaa ttc tgc cat 4
17

Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu Lys Phe Cys His

70 75 80

tct cag tta tcc aac aac agt gtc tct ttt ttt cta tac aac ttg gac 4
65

Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu Tyr Asn Leu Asp

85	90	95	100	
cat tct cat gcc aac tat tac ttc tgc aac cta tca att ttt gat cct				5
13				
His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser Ile Phe Asp Pro				
	105	110	115	
cct cct ttt aaa gta act ctt aca gga gga tat ttg cat att tat gaa				5
61				
Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu His Ile Tyr Glu				
	120	125	130	
tca caa ctt tgt tgc cag ctg aag ttc tgg tta ccc ata gga tgt gca				6
09				
Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro Ile Gly Cys Ala				
	135	140	145	
gcc ttt gtt gta gtc tgc att ttg gga tgc ata ctt att tgt tgg ctt				6
57				
Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu Ile Cys Trp Leu				
	150	155	160	
aca aaa aag aag tat tca tcc agt gtg cac gac cct aac ggt gaa tac				7
05				
Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro Asn Gly Glu Tyr				
165	170	175	180	
atg ttc atg aga gca gtg aac aca gcc aaa aaa tct aga ctc aca gat				7
53				
Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser Arg Leu Thr Asp				
	185	190	195	
gtg acc cta taatatggaa ctctggcacc caggcatgaa gcacgttggc				8
02				
Val Thr Leu				

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cagttttcct caacttgaag tgcaagattc tcttatttcc gggaccacgg agagtctgac 8
62

ttaactacat acatcttctg ctgggtgtttt gttcaatctg gaagaatgac tgtatcagtc 9
22

aatgggggatt ttaacagact gccttggtac tgccgagtc tctcaaaaca aacaccctct 9
82

tgcaaccagc tttggagaaa gccagctcc tgtgtgctca ctgggagtg aatccctgtc 10
42

tccacatctg ctctagcag tgcacagcc agtaaaacaa acacatttac aagaaaaatg 11
02

ttttaaagat gccaggggta ctgaatctgc aaagcaaag agcagccaag gaccagcatc 11
62

tgtccgcatt tcactatcat actacctctt ctttctgtag ggatgagaat tcctctttta 12
22

atcagtcaag ggagatgctt caaagctgga gctattttat ttctgagatg ttgatgtgaa 12
82

ctgtacatta gtacatactc agtactctcc ttcaattgct gaaccccagt tgaccatttt 13
42

accaagactt tagatgcttt cttgtgcc 13
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<210> 22
<211> 199
<212> PRT
<213> Homo sapiens

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<400> 22

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Met Lys Ser Gly Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys
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Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile
          20           25          30

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Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val
          35           40          45

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A-579D.ST25.txt

Gln Gln Phe Lys Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp
50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu
65 70 75 80

Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser
100 105 110

Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu
115 120 125

His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro
130 135 140

Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu
145 150 155 160

Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro
165 170 175

Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser
180 185 190

Arg Leu Thr Asp Val Thr Leu
195

<210> 23
<211> 199
<212> PRT
<213> Homo sapiens

<400> 23

Met Lys Ser Gly Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys
1 5 10 15

Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile

A-579D.ST25.txt

20

25

30

Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val
 35 40 45

Gln Gln Phe Lys Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp
 50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu
 65 70 75 80

Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
 85 90 95

Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser
 100 105 110

Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu
 115 120 125

His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro
 130 135 140

Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu
 145 150 155 160

Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro
 165 170 175

Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser
 180 185 190

Arg Leu Thr Asp Val Thr Leu
 195

<210> 24

<211> 200

<212> PRT

<213> Mus musculus

<400> 24

Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg
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Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser
 20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
 35 40 45

A-579D.ST25.txt

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
65 70 75 80

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
100 105 110

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
115 120 125

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
165 170 175

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
180 185 190

Ser Arg Leu Ala Gly Val Thr Ser
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<211> 24
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<210> 26
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<212> DNA
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<400> 26
tggtgacctt ccacatccca cag
23

<210> 27

<211> 23
<212> DNA
<213> Artificial Sequence

<400> 27
tccgatgtca tttcctgtct ggc
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<210> 28
<211> 24
<212> DNA
<213> Artificial Sequence

<400> 28
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<210> 29
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<212> DNA
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<400> 29
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<210> 30
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<210> 31
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<212> DNA
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gcgtgctgag gatcgacagg acccccag
28

<210> 32
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<212> DNA
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<400> 32
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<210> 33
<211> 21
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<213> Artificial Sequence

<400> 33
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21

<210> 34
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<400> 34
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<210> 35
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<400> 35
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